Four Focused Branches of Digital Media:

A Manifesto to Support Connecticut's Digital Media Industry

Table of Contents

Introduction

This manifesto represents a statement of understanding among educational professionals and degree-granted programs that support a robust Digital Media talent pipeline in the State of Connecticut. The document was produced by ten scholar-practitioners and reviewed by members of Connecticut's Digital Media professional workforce. The document presents a general definition of Digital Media, followed by four areas of concentration - referred to as "focused branches" in Digital Media. These branches support the concept of a well-rounded Digital Media generalist, who specializes in an area specific to Connecticut's industry:

- ▶ Motion Design and Animation
- ▶ Interactive Media Design and Development
- ▶ Film/Video Production
- ▶ Communication and Marketing

Using the outlines contained in this document, the manifesto works the broadness of Digital Media, by connecting the emerging needs of the industry with the shared values contained in university curriculum. The curriculum first-approach acknowledges the challenge of radical transformation within higher education, by establishing a bridge from what already exists within individual institutions to the ever-changing needs of Connecticut's Digital Media workforce.

We invite all Digital Media educators from across the state to champion Digital Media Connecticut's (DMCT) collaborative mission to prepare and retain talent in support of Connecticut's Digital Media industry. This requires an impartial review of this document; the information contained should not be used to support a traditional view of a specified branch. Instead, we ask educators to identify elements in their field not covered within existing curricula and ask questions that lead to an increased understanding of how their field relates to a much broader approach toward Digital Media.

To pick on a few examples, Film/Video Production students should not graduate with a singular view of traditional documentary and feature-length filmmaking. Instead, they must construct knowledge for how this skillset is situated within the world of communication and marketing. Similarly, Motion Design and Animation students must experience the various platforms on which they now operate, which

expand far beyond a 2D screen. Only with an understanding of these relationships can a Digital Media practitioner fully grasp the opportunities that exist in Connecticut's platform economy*.

Connecticut's Digital Media Industry

In recognition of existing market opportunities and targeted incentives provided by the State, a highly-skilled cluster of digital marketing and content producers has emerged in Connecticut. These include prominent media outlets like Blue Sky Studios, ESPN, ITV America, NBC Sports, Wheelhouse Entertainment, and WWE; small to medium-sized Digital Media agencies who specialize in different aspects of content production and marketing, and large non-media corporations such as Cigna, Henkel, and Priceline who have internal units dedicated to addressing digital brand and marketing needs. This expertise and strategic economic development investment from the state government - combined with its location and infrastructure - has established Connecticut as a leader in Digital Media, particularly in the field of Digital Media Marketing and Digital Content Production.

Four Focused Branches of Digital Media

This manifesto assumes a broad approach to Digital Media, which focuses on the production and distribution of information that satisfies a variety of needs within Connecticut. There are over 5,500 monthly posts on social media that reference the term. Topics expand across multiple fields, including advertising/PR (15%), culture/society (8%), education (7%), and design/creativity (6%)**. Therefore, rather than constraining Digital Media to a narrow collection of industries, this document considers Digital Media more broadly as addressing the design, distribution, and interaction of information within a variety of domains. In order to address Digital Media needs specific to Connecticut, the DMCT collaborative has identified four focused branches of Digital Media:

Motion Design and Animation

We view these as two distinct disciplines, each sharing many principles, processes, and uses.

Motion Design, also referred to as 'motion graphics,' is a time-based form that synthesizes aspects of graphic design, film/video, visual effects, illustration, animation, and/or interactivity. Motion designers are multi-skilled generalists that design experiences for audiences and users by bringing still objects to life. Like graphic designers, motion designers are often called upon to synthesize marketing or communication objectives into visually impactful experiences that convey compelling concepts and/or messages. A motion designer may or may not employ cinematic storytelling techniques, but instead may use abstract or expressive approaches that have evolved from art, design, film (fictional and non-fictional), and animation.

Title sequences for the entertainment industry, including television, film, events, and games are a typical domain for motion designers, as well as designs in motion used in commercials, entertainment marketing, news/sports/informational content, education, and branding. However, motion designers are often called upon to develop and improve UI/UX, create augmented or virtual reality experiences, and produce social media content for all types of industries, causes, and uses.

Animation is both a process and an output. As a process, animation refers to the techniques involved in making inanimate designs, images, or illustrations move in either 2-dimensional or 3-dimensional applications. Animation, as an output, is often associated with film or television content popularized by the entertainment industry. In the entertainment industry, animators are highly-skilled artists or technicians in distinct areas of an animation pipeline, for example, pre-visualization, modeling, rigging, lighting, simulations, visual effects, or rendering, to name a few. However, with the proliferation of relatively affordable hardware/software, and public access to online distribution platforms, high-end animation is possible for independent content creators, some of whom have

found a financially sustainable home for their content on social media platforms such as Instagram or YouTube.

Motion Design and Animation come together to prepare students to be well-rounded visual design generalists, capable of ideating and producing content for a variety of contexts. Each shares a common language of production, i.e. boarding, key-framing, pacing, etc. Each also shares similar complementary outputs, from traditional linear forms such as video or film to emerging experiential forms in UI/UX, AR/VR, games, digital display and mobile

ads, social media, events, or architecture.

Situated in the media-rich landscape of the northeastern United States, near one of the country's largest and most innovative production hubs, Connecticut students skilled in Motion Design and Animation are well-positioned to satisfy the areas' many marketing and communication needs, as well as compete for more specialized roles in the state's entertainment industry. Motion Design and Animation also prepare students for new opportunities in emerging digital media fields such as Augmented and Mixed Reality (AR/MR).

Keywords: 2D Animation, 3D Animation, 3D Modeling, Motion Design, Motion Graphics, Multimedia, Projection Mapping, AR, VR, MR, Graphic Design, Broadcast Graphics, Title Sequence, Virtual Graphics, Visualizations, Film/Video, Transmedia Storytelling

Interactive Media Design and Development

This area includes the process of brainstorming, designing, and creating artwork, products, and services on computer-based systems that integrate users' actions as part of the experience. This area is in constant evolution as technologies, types of content, and platforms change. Media types include pre-digital forms like text, audio, animations, video, and video games, which have converged with the development of digital experiences that include web design, user experience design, motion capture, digital poetics, and procedurally generated music. This field explores relationships between the virtual, the physical, and the hybrid spaces that are being generated by experimenting with them. Within marketing, this also considers Digital Out of Home experiences (DOOH), which also fuel the need for more interactive video content.

Interactive media provide a method of communication in which the work is generated collaboratively. Interdisciplinary teams include content providers, computer programmers, UX researchers, user interface specialists and end-to-end experience designers. These collaborations often benefit from bringing together different skill sets to produce works that engage subject matter from multiple perspectives that otherwise would not have come to fruition.

In addition to producing content, students in this area learn about the process of creating, contributing to, and managing teams, iterative testing of the product on target audiences, and critical analyses of the ways that embedded messages are transmitted and received.

Given that our medium is digital, coding and data are integral to the practice. We incorporate research and development to support understanding of the technical tools and how they allow us to be creative. We also seek to understand how the work we create affects users and ensures that we create work for positive social impact. We support research and development of the ways that games and other interactive media can be used to teach, train, simulate, and effect prosocial behavior change.

Keywords: AR, VR, Mixed Reality, Web Design/Development, Mobile App Design/Development, Digital Media Exhibitions, Interactive Displays, Game Design/Development, Creative Coding, Immersive Experiential, Transmedia Storytelling

Film/Video Production

Film/Video production considers traditional approaches to documentary and narrative filmmaking (short or feature-length), while also connecting this skill set to content marketing, which supports brands who endeavor to make stronger connections with the consumer through video. Similar to Motion Design and Animation, this branch, therefore, represents a general approach to content production. However, unlike Motion Design and Animation, this branch focuses almost exclusively on content captured using a film/video camera/camcorder.

Live-action storytelling is the central hub to the myriad of genre spokes that encompass the branch of Film/Video Production. Whether it be through journalism, scripted, and unscripted content, stories connect through awareness and emotion.

Audience are drawn to compelling audio/visual experiences, and technology is making it easier to consume content in many different ways. Practitioners of film/video production produce content for traditional broadcast and digital outlets, but also work with agencies and marketing campaigns to create audio/video assets specific to a platform (e.g., IG, TikTok, YouTube, Snapchat, etc.).

Content production can include live-event production that captures moment-to-moment documentation of a story as it unfolds. Breaking news coverage, sports, esports, reality programming, short productions of social media platforms, taping of conventions, and concerts are just some of the genres related to this form of production. Confidence, organization, multi-tasking, and in-the-moment decision-making are the most important skills needed in this field.

Students with an interest in Film/Video Production and/or Live Events have a vast array of career choices they can pursue after acquiring the fundamental competencies as a result of the growth in the critical mass of companies in the sector. Developing pre-production skills, operating professional production equipment, editing

applications in post-production, the development of production strategies, ethics, editorial judgment, leadership, and the expectation to keep up with technological advances, all contribute to an individual's ability to create, present, and/or disseminate content. Additionally, students in this branch will develop a strong historical, conceptual, and critical understanding of film/video production that supports knowledge construction of the current media landscape and its continued transition from linear to digital.

Keywords: 360 Video, Editing, Film Production, Video Production, Documentary Production, Reality Television, Audio Production, Podcasts, Live Sports Production, Live Events Production, Multimedia, On-Line Video (OLV), Social Video, Editing, Color Grading
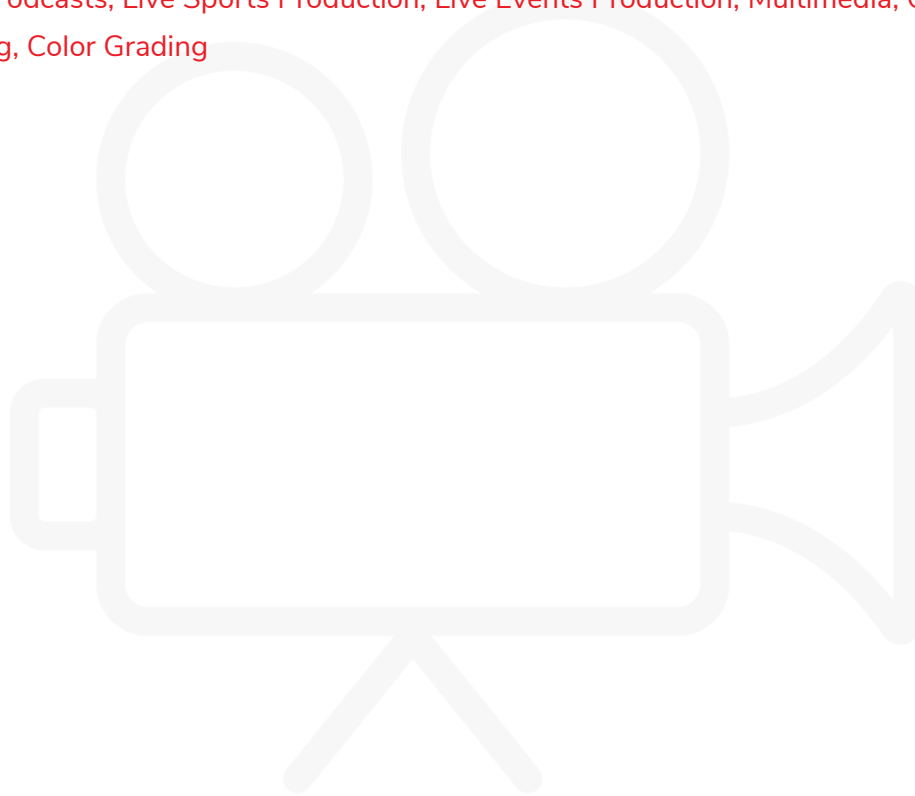
Communication and Marketing

Pertinent marketing communication strategies in today's digital world must be grounded on insights provided by the solid foundations of big data. Specifically, the branch of Communication and Marketing underscores the connection between the increasing use of big data in the digital space and the formulation of digital marketing communication strategy, as well as how digital insights inform and enrich digital marketing communication tactics executed across the marketing mix. Throughout the process, from conception of the big idea to tactical implementations, the key content evolves, strategically situated within a large web of multimedia experiences designed to interactively engage the audience. Within this area, a variety of career paths are possible for future professionals. They include, but are not limited to:

▶ Those who manage and design the research projects in-house or for the client to consult or to guide the formulation of digital media content production and marketing strategy (e.g., digital marketing researchers, managers, and directors);

▶ Those who engage in the operational execution of research projects dealing with digital data in the area of digital data analytics (e.g., digital data scientists specializing in quantitative, qualitative statistical techniques, and software such as SAS, R, SPSS;

▶ Data specialists versed in programming languages to work with extracting data using SQL, Python;

▶ Data analysts specializing in machine learning and data mining;

▶ Data experimentalists specializing in A/B testing and more recently dynamic creative optimization (DCO), which uses data to serve personalized experiences).

Other areas of communication and marketing also include:

▶ Those who utilize insights drawn from digital data in their everyday maintenance and development of the digital brand presence as well as facilitation of and interaction with online engagement (e.g., digital marketing strategists, digital account planners, social media managers, digital marketing managers, and digital brand managers);

▶ and those who manage and schedule effective

and efficient media assortments to communicate with target audiences (e.g., media account executives, media planners, media buyers, Search Engine Optimization (SEO) managers, programmatic managers).

Finally, the Creative Strategist is also an emerging theme among digital media and design agencies, looking for individuals with a hybrid skill set of communication strategy and creative direction. These individuals analyze data and identify the best platforms and storytelling techniques to appeal to specific target audiences. In turn, they are able to bridge strategic objectives with creative expression by applying big data to communications planning while also leading the development and analysis of digital content during execution.

Keywords: Big Data, Data-Driven Consumer Insights, Data Mining, Data Visualization, Digital Marketing Communication Strategy, Multivariate Statistical Analysis, Social Media Analytics, Social Media Marketing, Quantitative and Qualitative Marketing Research, Dynamic Creative Optimization (DCO), Search Engine Optimization (SEO), Programmatic Auction, Media Planning, Integrated Marketing Communications (IMC) Strategy, Strategic planning & Communications planning, Transmedia Storytelling, Sports and Entertainment Marketing

A Future Beyond the Silo

As presented in this document, many Digital Media opportunities in Connecticut co-exist in the worlds of business and entertainment. Therefore knowledge of marketing, branding, freelance, strategic planning, and entrepreneurship must form part of a student's education in Digital Media. This requires a decrease in the silos that dominate higher education and K-12 institutions. Digital Media education must expand beyond a collection of technologies or a specific discipline.

Digital Media is also highly sensitive to emerging technologies, which makes it difficult for a single individual or discipline to remain current. Students of Digital Media must learn to stay attentive to changes within each branch and adapt as new practices unfold. This requires knowledge of new technologies and design procedures, and an ongoing need to reflect, learn, and expand thinking beyond a single discipline.

Digital Media practitioners must learn to appreciate their responsibilities when crafting information for online consumption. Although this may seem most applicable to journalism, it is also highly relevant to social activism and social media marketing.

Social media listening and artificial intelligence technologies provide content producers with essential data about their audience. This data is useful when working toward a change in view or behavior. Likewise, the emergence of Deep Fakes within mainstream media highlights the increasing need for media literacy skills as producers and consumers of information. Although these technologies provide new forms of artistic and greater control on targeting an audience, they also raise ethical concerns that all future digital media practitioners must begin to understand before entering the workforce. Furthermore, they will continue to usher in new practices and challenges as industry continues its move from a mobile first to an AI first philosophy that also includes increased inclusion of virtual assistants like Alexa, Siri, and Cortana***.

Diversity & Inclusion

The DMCT collaborative believes that a diverse workforce contributes to the vibrance of the digital media industry. We are committed to fostering practices that promote inclusion in the workforce and that embrace diverse visions and voices. Access to these branches must be available to everyone.

This requires greater support toward Connecticut's education achievement gap and producing targeted approaches toward underrepresented groups in Connecticut's Digital Media industry. Specifically, we will promote equal access to education, training, and employment at all levels.

Working as a Collaborative

As a collaborative of higher education institutions committed to supporting Digital Media in Connecticut, this manifesto serves as a working document to guide the efforts we make in partnership with the industry and state government. This will include the design of shared content, live events, internship programs, and furthering ongoing partnerships with Connecticut's industry.

*Gray & Suri (2019), present a summary of how technology giants are hiring ghost workers on internal platforms, as opposed to hiring full-time employees. This approach to the workforce is similar to the concept of freelance work in film and television. With an emerging cluster of digital content producers located in Connecticut, the Digital Media Generalists will be best placed to operate in multiple branches. With an emerging cluster of digital content producers located in Connecticut, the Digital Media Generalists will be best placed to operate across the branches as they support multiple clients within the platform economy.

**Based on results of an internal 2020 social media listening analysis for use of the term "Digital Media" in Connecticut.

***The phrase "moving from a mobile first to an AI first" was taken from an 2017 interview with Google CEO Sundar Pichai, published by The Guardian.

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